

# Seeing the Elephant -- Consequence Management Policy for the Department of Defense

A Monograph  
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Consequence Management is a complex problem facing the US today. A subset of Homeland Security, Consequence Management is the post attack actions needed to prevent further suffering and restore basic government services. Consequence Management requires a symphony of effort from many federal agencies, including the Department of Defense. Because organizations are driving their actions based on misperceptions gleaned from the 1996 Sarin attack in Tokyo, many are moving in divergent directions. These divergent programs are often competing for the same resources, and siphon these resources away from the local response community. This monograph explores these common misperceptions and recommends a new direction, closer to the required capabilities, for the Department of Defense role in Consequence Management. The monograph recommends the elimination of specialized units for WMD response. An honest assessment of the time element of an event shows the folly of this approach. The second recommendation is the creation of a tiered response capability that balances time and tasks required for effective Consequence Management. The three response tiers allows the DoD to provide a predesignated level of support to the appropriate Federal and state agency. The first two tiers address the response required for toxic chemical events. The third tier is reserved for the actions required for the Consequence Management for a biological release.

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## **Abstract**

*Seeing the Elephant - Consequence Management Policy for the Department of Defense* by MAJOR Mark A. Lee, US Army. 51 pages.

Consequence Management is a complex problem facing the US today. A subset of Homeland Security, Consequence Management is the post attack actions needed to prevent further suffering and restore basic government services. Consequence Management requires a symphony of effort from many federal agencies, including the Department of Defense.

Because organizations are driving their actions based on misperceptions gleaned from the 1996 Sarin attack in Tokyo, many are moving in divergent directions. These divergent programs are often competing for the same resources, and siphon these resources away from the local response community.

This monograph explores these common misperceptions and recommends a new direction, closer to the required capabilities, for the Department of Defense role in Consequence Management. The monograph recommends the elimination of specialized units for WMD response. An honest assessment of the time element of an event shows the folly of this approach.

The second recommendation is the creation of a tiered response capability that balances time and tasks required for effective Consequence Management. The three response tiers allows the DoD to provide a predesignated level of support to the appropriate Federal and state agency. The first two tiers address the response required for toxic chemical events. The third tier is reserved for the actions required for the Consequence Management for a biological release.

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## Introduction

*It was six men of Indostan  
To learning much inclined,  
Who went to see the Elephant  
(Though all of them were blind),  
That each by observation  
Might satisfy his mind*

*The First approached the Elephant,  
And happening to fall  
Against his broad and sturdy side,  
At once began to bawl:  
"God bless me! but the Elephant  
Is very like a wall!"*

*The Second, feeling of the tusk,  
Cried, "Ho! what have we here  
So very round and smooth and sharp?  
To me 'tis mighty clear  
This wonder of an Elephant  
Is very like a spear!"*

*The Third approached the animal,  
And happening to take  
The squirming trunk within his hands,  
Thus boldly up and spake:  
"I see," quoth he, "the Elephant  
Is very like a snake!"*

*The Fourth reached out an eager hand,  
And felt about the knee.  
"What most this wondrous beast is like  
Is mighty plain," quoth he;  
" 'Tis clear enough the Elephant  
Is very like a tree!"*

*The Fifth, who chanced to touch the ear,  
Said: "E'en the blindest man  
Can tell what this resembles most;  
Deny the fact who can  
This marvel of an Elephant  
Is very like a fan!"*

*The Sixth no sooner had begun  
About the beast to grope,  
Than, seizing on the swinging tail  
That fell within his scope,  
"I see," quoth he, "the Elephant  
Is very like a rope!"*

*And so these men of Indostan  
Disputed loud and long,  
Each in his own opinion  
Exceeding stiff and strong,*

*Though each was partly in the right,  
And all were in the wrong!*

*Moral:  
So oft in theologic wars,  
The disputants, I ween,  
Rail on in utter ignorance  
Of what each other mean,  
And prate about an Elephant  
Not one of them has seen!<sup>1</sup>*

The national security environment for the US in the twenty-first century has such an elephant. It goes by the name of Consequence Management. Like the men of Dagestan in the parable, many government organizations have made observations and developed plans to solve this elephantine problem. These different organizations, working on their part of the problem, define the solution based on their observations.

For the purpose of this monograph, Consequence Management represents the actions taken after an event to reduce the amount of suffering and to restore normalcy. Most Consequence Management actions take place after a disaster or catastrophic event. Recent events have shifted the focus onto solely the actions taken in the aftermath of a terrorist incident.

### ***The Crystallizing Experience – the Aum Shinrikyo Sarin attack***

A short review

Developmental psychologists refer to a single event that allows an individual to combine many bits of knowledge to form a coherent model as the

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<sup>1</sup> John Godfrey Saxe, *The Blind Men and the Elephant*, <http://www.wordfocus.com/word-act-blindmen.html>: 16 April 2001.

crystallizing experience.<sup>2</sup> The analogy is fitting; the particles in solution represent the individual elements of information, and the crystal that is formed bears little resemblance to the original. The crystallizing experience is one that will always be remembered.

Before 1996, most Americans would have equated homeland defense with the Civil Defense efforts of the 1950's. The "Duck and Cover" drill, designed to protect schoolchildren for the effects of a Soviet nuclear blast over American soil, was ingrained in the psyche of the nation.<sup>3</sup> The policy of Mutual Assured Destruction (MAD) created a national consciousness about Soviet Nuclear Weapons. These fears came to a nationwide head during the October 1962 Cuban Missile Crisis.<sup>4</sup> Both governmental organizations and individuals took dramatic steps to improve preparedness. Government fallout shelters were quickly identified, and bomb-shelters became the vogue project for the do-it-yourselfer. After the October Crisis, the ensuing safeguards between the superpowers were enough to assuage the fears of most Americans. That out-of-sight mentality carried through until March of 1995, when five individuals placed eleven paper-wrapped plastic bags on the floors of five Tokyo subway cars, punched several holes in them with sharpened umbrella tips and walked off the cars.<sup>5</sup>

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<sup>2</sup> J. Walters, and Howard Gardner, "The Crystallizing Experience," in *Conceptions of Giftedness*, Robert J. Sternberg and J. Davidson, eds. (New York: Cambridge UP, 1986).

<sup>3</sup> Pat Zacharias, "When Bomb Shelters Were All the Rage," *Detroit News* <http://detnews.com/history/shelters/shelters.htm>: Detroit News, 02 May 2001.

<sup>4</sup> Ashton B. Carter, John M. Deutch and Philip D. Zelikow, "Catastrophic Terrorism: Tackling the New Danger," *Foreign Affairs* 77, no. 6 (Nov/Dec 1998).

<sup>5</sup> Amy E. Smithson and Leslie-Anne Levy, *Ataxia: The Chemical and Biological Terrorism Threat and the US Response* (Washington, D.C.: Henry L. Stimson Center, Oct 2000), 90.



The March 20, 1995 Sarin attack in the Tokyo subway by Aum Shinrikyo, a doomsday cult, was arguably the most unsettling thing to come from that great city since the 1950's cinematic debut of a giant green lizard named Godzilla.<sup>6</sup> The attack specifically targeted the Tokyo police forces that were ready to execute a raid against the cult facilities. The five targeted subway lines converged on the station right above the Police headquarters. The timing of the attack was planned to kill as many police officers as possible as they came to work.<sup>7</sup>

Media reports of over 5,500 casualties and twelve deaths proved the horrific nature of chemical warfare agents against unprotected persons. Graphic images of commuters gasping and coughing quickly brought the world's attention to the attack. According to later reports, the attack left local responders shortly overwhelmed by both the scope and scale of the attack.

The Aum Shinrikyo attack has become the rallying cry for those concerned about the vulnerability of America to such terrorism. Just as Godzilla grew in each successive movie, the legacy of the Aum Shinrikyo attack has grown with each passing year. The terms Weapons of Mass Destruction (WMD) and Sarin have become part of our vocabulary. The World Trade Center (1993) and Oklahoma City (1995) bombings demonstrated that Fortress America was no longer immune to terrorism. Now America faced the possibility of terrorism, but the added threat of a terrorist group using a WMD in the Homeland. How prepared was America to respond to such an attack?

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<sup>6</sup> Ibid., 1.

<sup>7</sup> Ibid., 87.

After the Tokyo attack, local governments across the nation began to explore the many nuances of the response to a WMD event. Executing the inconceivable rarely goes smoothly, and the exercises were riddled with many errors. Training is done to identify strengths and weaknesses to increase proficiency. Yet, the shortcomings lead to a hypercritical analysis of the preparedness of the nation as a whole. The premise that underpinned all of discussion was that the Aum Shinrikyo attack crossed some intangible threshold on the use of WMD in terrorist attacks. This new attitude led many to conclude that terrorist use of a WMD on American soil was inevitable. Once they convinced themselves of the inevitability, the focus was then on the response capability. What was seen did not inspire confidence.

Presently, our cities and towns are not equipped to deal with a chemical, biological radiological or nuclear incident, and present efforts to reduce this threat are unfocused and scattered across dozens of departments and agencies in a patchwork scheme which suffers from lack of coordination and overlap.<sup>8</sup>

## Perceptions

The vivid images of Japanese citizens coughing and convulsing on the ground created a strong image for the world. As a weapon to induce terror, Sarin was highly effective. A final estimate indicates that just over 159 grams of Sarin was released.<sup>9</sup> This small amount produced twelve deaths and over 5,500 casualties. Much of the media attention focused on the “threshold” of WMD

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<sup>8</sup> Senator Sam Nunn, "The Nuclear Roundtable," *Defense Against Weapons of Mass Destruction Act of 1996*, <http://www.stimson.org/rd-table/nunnrtbl.htm>.

<sup>9</sup> Smithson, *Ataxia*, 89.

terrorism being crossed. This was in spite of the fact that the cult had used Sarin in a highly sophisticated attack years earlier.<sup>10</sup>

The mass casualties converged on the Tokyo hospitals. First Responders, Police, Fire and Emergency Medical Technicians (EMTs) were reported as casualties, succumbing to the poison gas as they tried to help those stricken. Local hospitals had health care personnel falling victim in the hospitals as well. It was the arrival of the Japanese Self-Defense Force units when decontamination took place.<sup>11</sup>

The Aum attack was the crystallizing event for many. The attack took all of the knowledge and impressions they had accumulated and put it into a single, unwavering model. Like the blind men examining the elephant, those involved with making Consequence Management policy of the US saw only a small part of the Aum experience that they wanted to see.

## ***Methodology***

This monograph establishes the immutable requirement for a homeland defense effort. It presents a review of the proliferation of WMD, along with their characteristics. This will show a viable, but misunderstood threat. The second chapter addresses some of the many programs, initiatives and efforts in response capabilities. A review of the language of the 1996 *Defense Against WMD* Act establishes the role of the Department of Defense in the homeland defense effort. The monograph summarizes the current DoD programs.

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<sup>10</sup> Ibid., 84

The third chapter addresses how misperceptions from the Tokyo attack have created an inability to see the threat in a subjective manner. The proliferation of weapons of mass destruction presents a challenge to national security that cannot be ignored. Conversely, it is a threat that requires an empirical analysis of the threat and the realistic assessment of the dangers presented.

The fourth chapter demonstrates the difficulty organizations have in perceiving the different elements in a WMD event. First, it delineates the fundamental differences between a response to a toxic chemical event and a biological event. The time element of a chemical and biological event demonstrates a different response mechanism is required for each. Additionally, the chapter presents data on the level of hysteria WMD use will have on the response effort. The 'walking well' might present more of a challenge than actual victims might.

The fifth chapter presents misperceptions on the response capabilities present at the local and federal levels. The ability to respond at the local level can be improved, but only after an honest assessment of existing capabilities.

The research question, "Does the current DoD Consequence Management program orient on WMD event profiles and response timelines?" was proven to be incorrect. The current Consequence Management program does not recognize the different response required for a chemical or biological act of terrorism. The recommendations presented in the last chapter will reorient the current program.

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<sup>11</sup> Ibid., 100.

## Chapter Two – Current programs – Jumping into the fray

*On s'engage et puis on voit* (One jumps into the fray, then figures out what to do next) - Napoleon<sup>12</sup>

### ***Existing Directives***

The many layers of government, Local, State and Federal can influence activities in many separate ways. The President has the authority to direct the agencies of the Executive Branch to execute specified missions. Most of these are promulgated in the form of a Presidential Decision Directive. (PDD). These documents are, as the name implies, directive in nature. PDD's do not usually have any funding associated with them, but serve as taskings. The US Congress can also prompt action by the various laws that they approve. Most Congressional actions do involve funding. The directives listed below are in chronological order.

#### Presidential Decision Directive 39 (PDD 39) – US Policy on Counterterrorism

PDD 39 was created in the aftermath of the Oklahoma City bombing. It established the likelihood that terrorism was possible on American soil. It also pointed out that the current plans for dealing with terrorism were not adequate. The directive established a two-pronged approach to the terrorism threat. Crisis Action, the steps taken to stop terrorists before they can act, was assigned to the Federal Bureau of Investigation (FBI). Consequence Management, the steps taken after a successful terrorist attack, was assigned to the Federal Emergency

Management Agency (FEMA). PDD-39 tasked these two agencies as the lead federal agency for the two programs. It also tasked the FBI to establish a Domestic Emergency Support Team. An interagency support team, DEST was to, "... only those agencies needed to respond to the specific requirements of the incident. Membership in the team shall include modules for specific types of incidents such as nuclear, biological or chemical threats."<sup>13</sup>

Public Law 104-201, *Defense Against Weapons of Mass Destruction Act of 1996*, (a.k.a. Nunn-Lugar-Dominici Act)

Senator Sam Nunn, along with Senators Richard Lugar and Pete Dominici, authored the first legislation designed to meet this new threat. Public Law 104-201, *Defense Against Weapons of Mass Destruction Act of 1996* codified the shortcoming of local authorities to respond to a WMD event. It recognized the expertise resident in the Department of Defense and tasked the DoD to take steps to assist local responders in developing their response programs.<sup>14</sup> The Act called for four distinct elements of support. They were the City Train-the-trainer program, the Exercise Program, the Expert Assistance Program and the Chemical/Biological Rapid Response Team.

The Department of Defense attempted to meet these requirements in separate actions. The 120 largest cities, by population, were initially identified for training. Familiarization training with the 98 of the 120 largest cities in the

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<sup>12</sup> Dietrich Dorner, *The Logic of Failure* (New York: Metropolitan Books, 1996), 181.

<sup>13</sup> National Security Council, "Presidential Decision Directive/NSC 39, US Government Policy on Counterterrorism," <http://www.fas.org/irp/offdocs/pdd39.htm>: Federation of American Scientists,

nation is complete. This is an impressive accomplishment given the short time, three years, to accomplish all the training. The program did receive a significant amount of criticism during that time. The decision to train the largest 120 cities meant that some states would receive no training at all, while the west coast benefited from several proximate cities getting the training.<sup>15</sup> Another, related, criticism concerned the discounting of existing mutual aid relationships in the training process. Communities will enter mutual aid agreements with nearby communities in order to avoid the requirement for a large, standing response force. The city selection process focused on municipalities only.<sup>16</sup>

The WMD Act of 1996 was a significant measure taken to increase the ability of America to react to a WMD terrorist attack. Its focus was to develop the capability of the local response community.

#### FEMA Federal Response Plan update

Prompted by PDD 39, FEMA published a terrorism annex to the Federal Response Plan (FRP) in February 1997. This annex incorporated the taskings of PDD 39 into the FRP. It reinforced that the FBI would be the Lead Federal Agency (LFA) for crisis action, and that FEMA would be the LFA for Consequence Management.<sup>17</sup> The transfer of LFA authority came at the

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<sup>14</sup> US Congress, "Public Law 104-201," *National Defense Authorization Act for Fiscal Year 1997, Title, XIV, Defense Against Weapons of Mass Destruction Act of 1996* (Washington, D.C.:23 Sep 1996).

<sup>15</sup> General Accounting Office, *Combating Terrorism: Opportunities to Improve Domestic Preparedness Focus and Efficiency* (Washington, D.C.: November 1998), 7.

<sup>16</sup> *Ibid.*, 6.

<sup>17</sup> Federal Emergency Management Agency, "Terrorism Incident Annex," *Federal Response Plan*, [http://www.fas.org/irp/offdocs/pdd39\\_frp.htm](http://www.fas.org/irp/offdocs/pdd39_frp.htm):07 Feb 2001.

discretion of the Department of Justice. The annex established the FEMA definition of Consequence Management.

Measures to protect public health and safety, restore essential government services, and provide emergency relief to governments, businesses, and individuals affected by the consequences of terrorism.”<sup>18</sup>

The Annex tasked the Department of Defense to be prepared “to activate technical operations capabilities to support the Federal response to threats or acts of WMD terrorism.” Technical operations include actions to identify, assess, dismantle, transfer, dispose of, or decontaminate personnel and property exposed to explosive ordinance or WMD.<sup>19</sup> Additionally, the Department of Health and Human Services, Department of Energy and the Environmental Protection Agency are also tasked to provide technical operations support. The Annex does not delineate the responsibilities further among these agencies.

#### Presidential Decision Directive 62 (PDD 62) – Combating Terrorism

This classified directive “creates a new and more systematic approach to fighting the terrorist threat of the next century.”<sup>20</sup> The directive created a national coordinator for security, infrastructure protection and Counter-Terrorism. The duties include program oversight for preparedness and Consequence

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<sup>18</sup> Ibid.

<sup>19</sup> Ibid.

<sup>20</sup> Office of the Press Secretary, “Fact Sheet,” *Combating Terrorism: Presidential Decision Directive 62*, <http://www.fas.org/irp/offdocs/pdd-62.htm>: 22 May 1998.



Management for weapons of mass destruction.<sup>21</sup> The main effort of this directive was to establish priorities for counter-terrorism and crisis action.

#### Presidential Decision Directive 63 (PDD 63) – Critical Infrastructure Protection

Released the same day as PDD 62, this directive established the infrastructure required for normal operation of our country. By its very title, this PDD served, if nothing else, as the blueprint for the presidential perspective on the decisive points in the nation. Damage to these facilities would endanger the loss of stability for our government. The directive did not discuss Consequence Management.

#### ***Department of Defense agencies***

The Department of Defense has many organizations that can provide technical support to a Consequence Management response. In addition to the twenty-seven WMD-CST teams, fifteen other DoD units have some role in the Consequence Management arena.<sup>22</sup> These teams are spread across the services. The Army, Navy and Air Force have four teams each, the Marine Corps one and two are joint.<sup>23</sup> Some teams are on shorter recall than others. The deploy time listed below represent the time require to assemble and prepare

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<sup>21</sup> Ibid.

<sup>22</sup> Secretary of Defense, *Proliferation: Threat and Response* (Washington, D.C.: Department of Defense, 2001), pp. 105-8

<sup>23</sup> Ibid.

for departure from the home station of the organization. It is not the arrival time for the team at the incident site.<sup>24</sup>

#### Chemical-Biological Rapid Response Team (C-B/RRT)

Created by the WMD Act of 1996, the fourteen soldier C-B/RRT is based in Aberdeen, MD. The C-B/RRT is designed to deploy to a Consequence Management site to provide technical support for neutralization, containment, dismantlement and disposal of chemical or biological materials.<sup>25</sup> The C-B/RRT can deploy an initial team within four hours, with the rest of the team deploying in ten to twelve hours.<sup>26</sup>

#### Chemical-Biological Incident Response Force (CBIRF)

An offshoot of the analysis that went on after the Tokyo attack, the Commandant of the Marine Corps created CBIRF in 1996.<sup>27</sup> This unit was created as a reaction to the perceptions of the Tokyo attack and without any DoD directive.<sup>28</sup> CBIRF is a self-contained Consequence Management unit that provides its own medical, reconnaissance and decontamination elements. It has a complement of 370 personnel of varying specialties. It can deploy an initial team in six hours with the remainder deploying in twenty-four hours.<sup>29</sup> By its own

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<sup>24</sup> General Accounting Office, *Combating Terrorism, Federal Response Teams Provide Varied Capabilities; Opportunities Remain to Improve Coordination* (Washington, D.C.: November 2000), 42.

<sup>25</sup> *Ibid.*, 37.

<sup>26</sup> *Ibid.*

<sup>27</sup> Chris Sieple, "Consequence Management: Domestic Response to Weapons of Mass Destruction," *Parameters*, Autumn 1997

<sup>28</sup> *Ibid.*

<sup>29</sup> GAO, *Combating Terrorism: Federal Response Teams Provide Varied Capabilities; Opportunities Remain to Improve Coordination*, 39.

admission, CBIRF is most effective when pre-deployed to provide its capability in support of a high profile event.<sup>30</sup>

#### Weapons of Mass Destruction – Civil Support Teams (WMD-CST (RAID))

A WMD-CST began its life as the Rapid Assessment and Initial Detection (RAID) teams. These twenty-two soldier teams were created to provide one team in each FEMA region. The initial slating called for only these ten teams. An addition requirement for 17 more teams followed shortly.

The mission of the RAID teams is to assist state and local authorities in assessing the situation surrounding a WMD emergency; advise these authorities regarding appropriate actions; and facilitate requests for assistance to expedite the arrival of additional state and federal military assets.<sup>31</sup>

WMD-CST Teams anticipate four hours for the team to deploy to the incident site. Since the team has special equipment and no dedicated aircraft, deployment will likely be slower than expected.<sup>32</sup>

A General Accounting Office report questioned the validity of the WMD-CST teams in a response effort.<sup>33</sup> The report found the team presented a redundant capability that did not meet the requirements of the two Lead Federal Agencies in a Consequence Management effort, the FBI and FEMA.<sup>34</sup>

A recent DoD Inspector General report was very critical of the WMD-CST program. It cites lack of doctrinal development as a critical shortcoming. In the

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<sup>30</sup> Smithson, *Ataxia*, 292.

<sup>31</sup> GAO, *Combating Terrorism: Opportunities to Improve Domestic Preparedness Focus and Efficiency*, 38.

<sup>32</sup> General Accounting Office, *Combating Terrorism, Use of National Guard Response Teams is Unclear* (Washington, DC:May 1999), 18.

report, one of the many recommendations included a liaison with the Federal Bureau of Investigation to determine the exact role of the WMD-CST.<sup>35</sup> This indicates that, from an interagency perspective, the mission of the WMD-CST teams is unclear. Another critical finding was the inability of the first ten teams to meet initial operational readiness requirements despite \$140 million expenditures over the last two years.<sup>36</sup>

#### Joint Task Force Civil-Support (JTF-CS)

A 1999 Secretary of Defense Directive created JTF-CS. JTF-CS is a deployable headquarters, capable of exercising command and control over all DoD assets deployed to a WMD event. Comprised of sixty personnel, the JTF is capable of deploying an advance element within four hours.<sup>37</sup>

Department of Defense efforts in Consequence Management have focused, to date, on developing the response capability of military units to a WMD event. With the exception of the C-B/RRT, these units have been created to fill a void of inactivity. To varying degrees, these units derived their charters from the misperceptions presented in the following chapters.

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<sup>33</sup> Ibid.

<sup>34</sup> Ibid., 2

<sup>35</sup> Office of the Inspector General, *Management of National Guard Weapons of Mass Destruction - Civil Support Teams* (Washington, D.C.: Department of Defense, January 31, 2001), 6.

<sup>36</sup> Tony Capaccio, "Pentagon Mismanaged Chemical and Bio Defense Team, Audit Says," <http://ebird.dtic.mil/feb2001/e200110205mismanaged.htm>: Bloomberg.com, 09 Feb 2001:

<sup>37</sup> General Accounting Office, *Combating Terrorism*, 37.

## Chapter Three – Seeing the Threat

### ***Blind Man Number One - Pandora's Box Has Been Opened***

If Aum could do it, then other terrorist organizations will soon copy them.

I think we're very fortunate in this country. We haven't had the kind of attacks they had in Tokyo. And I think it's just a question of time before someone attempts that sort of thing. – Senator Sam Nunn<sup>38</sup>

Aum was, in many ways, an unusual cult, let alone terrorist organization. The doomsday cult had demonstrated that it was capable of both indiscriminant killing and assassination. It had a large number of scientists inside its organization. It possessed a nearly unlimited budget. Despite Japanese Police suspicions about Aum activities, current Japanese law did not make the possession of Sarin illegal.

This combination of resources and freedom allowed Aum to create its WMD program. Yet, this rare combination was often overlooked as Aum was equated to the typical terrorist organization. The use of Terrorist and WMD in the same sentence was enough to induce a sense of urgency in policy makers.

After an embarrassing showing in Japanese elections, Aum Shinrikyo began its search for Weapons of Mass Destruction in 1990.<sup>39</sup> After spending millions of dollars to equip laboratories, cult scientists set out to develop a biological weapons program. It sent teams out to different locations worldwide in search of biological cultures it could weaponize. Despite millions of dollars invested, Aum was unable to develop any biological weapon. It attempted nine

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<sup>38</sup> Smithson, *Ataxia*, 71.

biological attacks in Tokyo, none of which produces casualties. Its biological weapon program was a failure.<sup>40</sup>

Given the difficulty experienced by Aum in developing biological weapons, it should not be surprising that initial efforts to obtain chemical weapons were directed at purchasing existing agent. Aum attempted buys from both US and Soviet stockpiles. When these attempts failed, the cult set out to build multiple production facilities, buying hundreds of tons of precursor chemicals.<sup>41</sup> Aum scientists experimented with a number of Chemical Warfare agents, but eventually settled on Sarin for mass production.<sup>42</sup>

The cult facilities soon were producing significant quantities of Sarin. Aum scientists did open air testing of their agent at cult property in Australia. After the Tokyo attack, Australian police recovered the bodies of 29 sheep that had been killed with Sarin.<sup>43</sup> With a new facility operational, Aum was producing slightly over a gallon of Sarin per production run.<sup>44</sup> The next hurdle was the dissemination method. Aum scientists eventually settled on a cargo van set up with heaters and blowers. There were several disastrous runs with the new system, but most of the bugs would be worked out during the attack in Matsumoto on June 27, 1994. In this nighttime attack, the van system released approximately twenty kilograms of Sarin within the city. The attack was targeting

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<sup>39</sup> Ibid., 74.

<sup>40</sup> Ibid., pp. 75-80

<sup>41</sup> Ibid., 81.

<sup>42</sup> Ibid. Aum also produced mustard and VX. The VX was used as an assassination weapon by the cult. Three members were tried for murder using cult made VX. Although VX can also produce significant casualties, direct skin contact is required. Sarin can kill by skin contact or inhalation.

<sup>43</sup> Ibid. 84.

<sup>44</sup> Ibid., 83.

three judges that were expected to make a property ruling against the cult.<sup>45</sup> The attack failed to kill the judges, but did kill seven people; fifty-eight required hospitalizations and over 250 sought medical care for mild symptoms.<sup>46</sup> The confirmation of Sarin was only done after laboratory analyses of samples taken in the hazard area were complete. It was this evidence that eventually pointed investigators towards Aum.

The speed in which Aum was able to go from production to dissemination would be much harder in today's security environment. Counter proliferation efforts would make it nearly impossible for an organization to assemble the precursors and equipment without generating international interest. The Chemical Weapons Convention tracks signatory use and trade in designated agent precursors. The Australia Group, thirty-five-nation committee, provides similar oversight into the many items of equipment needed for production.<sup>47</sup> Control measures such as these make it difficult to run a program from scratch. Another method that generates concern is the direct acquisition from a nation of existing stocks. The US is heavily involved in many counter-proliferation efforts to reduce this road to WMD capability. Much has been said about the vulnerability of Former Soviet Union stockpiles and expertise. The US-Russian programs are working to reduce these vulnerabilities.<sup>48</sup>

Many are concerned that the methods used by Aum Shinrikyo provide the blueprint for WMD use in the future.

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<sup>45</sup> Ibid.

<sup>46</sup> Ibid.

<sup>47</sup> OSD, *Proliferation: Threat and Response*, 72.

<sup>48</sup> Ibid.

“I believe the proliferation of Weapons of Mass Destruction presents the greatest threat that the world has ever known.”<sup>49</sup> Secretary of Defense William Cohen, January 1997.

The unique environment present must temper this concern for Aum as a paradigm. It was a wealthy organization that took advantage of Japan’s permissive laws governing religions. Japanese police knew the cult was producing Sarin in November 1994, but were unable to act because possession was not against the existing Japanese law.<sup>50</sup> There were no controls on the purchase of precursor chemicals or the equipment needed for production. While current terrorist organizations like Usama Bin Laden profess a desire to acquire WMD, they do not enjoy the permissive environment that was present for Aum. The US missile attacks on a Sudanese chemical plant was part of the US policy to deny precursor chemicals to terrorist organizations.<sup>51</sup>

It has been five years since the Tokyo subway attack. If Aum Shinrikyo opened Pandora’s box, no other organization has followed. This can, in part, be due to the difficulties of producing and disseminating WMD. It can also be attributed to an increased global awareness about the security challenge WMD present to the global community. The weapon of choice for the terrorist remains the gun and the bomb.

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<sup>49</sup> Department of Defense, *Plan for Integrating National Guard and Reserve Component Support for Response to Attacks Using Weapons of Mass Destruction* (Washington, D.C.:1998), p. 1.

<sup>50</sup> Smithson, *Ataxia*, 85.

<sup>51</sup> OSD, *Proliferation: Threat and Response*, 61.



***Blind Man Number Two - The Worst Case Scenario is the basis for planning***

“A five pound-bag of sugar, if it were anthrax, would be enough to kill the entire population of Washington, DC.” – William J. Cohen, Secretary of Defense<sup>52</sup>

When part of the National Command Authority makes a statement as bold as this, most people assign a great deal of credence to it. Comments like this are part of the difficulty in properly addressing the Consequence Management problem. Many good intentioned, but ill-formed statements like this detract from a comprehensive campaign.

Many officials and agencies, “...developed their threat assessments in an empirical vacuum. Lacking solid data, they fell back on worst-case scenarios.”<sup>53</sup> This tendency to use the worst-case scenario is not a DoD phenomenon; FEMA-led interagency steering group efforts were based on the worst-case scenarios, rather than analysis of credible threats.<sup>54</sup>

Some speakers tend to move the absolute worst-case scenario or calculations in order to increase awareness of the dangers presented. The figures presented by the SECDEF are 100 times more dangerous than a congressional study published a few years earlier.<sup>55</sup> Despite these inflated estimates, few officials will admit to hype or hyperbole. If Secretary Cohen instead, overstated the size of the Soviet Army by a factor of 100, there would

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<sup>52</sup> Diego Lluma, "Low Probability, High Consequence," *Bulletin of the Atomic Scientists* 55, no. 6 (Nov/Dec 1999):

<sup>53</sup> Jonathan B. Tucker and Amy Sands, "An Unlikely Threat," *Bulletin of the Atomic Scientists* 44, no. 4 (July/August 1999),

<sup>54</sup> General Accounting Office, *Combating Terrorism, Federal Response Teams Provide Varied Capabilities; Opportunities Remain to Improve Coordination* (Washington, D.C.: November 2000), 22.

<sup>55</sup> Office of Technology Assessment. US Congress, *Proliferation of Weapons of Mass Destruction* (Washington, DC: US Government Printing Office, 1993), p. 53-55

have been an immediate outcry. The specter of biological weapons permits such statements with little more than a nod of agreement.

Part of the reason such numbers are commonplace stems from a lack of experimental data on these types of events. The US Army conducted tests in the 1950's that generated some empirical data.<sup>56</sup> Open-air testing of infectious agents on humans has not been done, for obvious reasons. In order to establish a reference mark, this monograph will introduce a new criterion. The effectiveness of the release will be expressed in a percentage of actual casualties versus theoretical casualties.

#### Toxic Chemical releases – Ideal versus actual

Since previous discussion has laid out the mechanics of the Tokyo subway attack, a discussion of the potential casualties can be examined. For simplification, the agent release will be assumed to take place in a single point, and will instantly vaporize to provide a homogeneous cloud of constant density. Aum agents released a total of 159 grams of Sarin. The lethal dose fifty percent (LD-50) for a man is 100 milligrams-minutes per cubic meter.<sup>57</sup> In other words, a concentration of 100 milligrams in a cubic meter of air, breathed for one minute, would be a fatal dose for fifty percent of the target population. The Aum release had the theoretical potential of producing 1,590 deaths.<sup>58</sup> The attack did cause 12 deaths. The effectiveness for this attack is 0.75 percent.

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<sup>56</sup> Leonard A. Cole, *Clouds of Secrecy: the Army's Germ Warfare Tests Over Populated Areas* (Totowa, NJ: Rowman & Littlefield, 1988)

<sup>57</sup> Army, *FM 3-9, Military Chemistry and Chemical Compounds* (Washington, DC: Headquarters, Department of the Army, 30 Oct 1975), 3-4.

<sup>58</sup> A release of 159 grams, divided by the LD-50 of 0.1 grams (100 Milligrams) would produce 1,590 lethal doses.

The Aum attack on Matsumoto presents another release to compare Ideal to actual. The attack from the specially constructed van released an estimated 20 kilograms of Sarin at night.<sup>59</sup> Nighttime releases are considered favorable since the winds are calmer. The attack only killed seven. The amount of agent released contained 200,000 lethal doses. The effectiveness for this attack is 0.0035 percent.

This attack took place outdoors, where dissipation greatly reduced the effectiveness of the release.

Commercial facilities can also release toxic chemicals against unsuspecting citizens. One of the more tragic events occurred in Bhopal, India in 1983. A release of over 40 tons of methyl isocyanate resulted in the deaths of over 3,800 and the injury of over 10,000. The lethality of Methyl Isocyanate is close to that of chemical warfare agents. The Immediate Danger to Life or Health (IDLH) for Methyl Isocyanate is 46.6mg per cubic meter.<sup>60</sup> The release had 1.7 million lethal doses. This results in an effectiveness of 0.002 percent.

Toxic chemicals, be they Sarin or an industrial chemical, have a great potential for lethality. In the three examples above, none of them exceeded one percent efficiency. Yet, experts appear in the media daily with profound and dire predictions of the dangers of chemical warfare agents.

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<sup>59</sup> Smithson, *Ataxia*, 85.

<sup>60</sup> National Institute for Occupational Safety and Health, "Documentation for Immediately Dangerous to Life or Health Concentrations (IDLHs)", <http://www.cdc.gov/niosh/idlh/idlh-1.html>:

## Biological releases - Ideal versus actual

Fortunately for mankind, biological entities do not appear in the atmosphere randomly. The presence of a cloud of biologics requires the hand of man. One such example occurred in 1979, in a town called Sverdlovsk. The city reported a large number of pulmonary anthrax infections in April 1979. In all, seventy-eight people were infected and sixty-six of those died.<sup>61</sup> While Soviet government was quick to blame tainted meat, independent investigation indicated it was from the inhalation of Anthrax that was disseminated from a single point. The release point was inside a secret Soviet facility believed to be a part of the Soviet biological weapons program. US investigators determined a cigar-shaped pattern contained all of the victims.<sup>62</sup> This type of infection or dissemination pattern is typical of a point release. A Soviet defector, Ken Alibek, latter confirmed the release was the result of a worker failing to replace a filter.<sup>63</sup> Alibek could not estimate the amount of anthrax that was released. The hazard area contained a population of 7,000 at the time of the release.<sup>64</sup>

It is difficult to determine the effectiveness of this release for two important reasons. The amount of agent released is unknown. Secondly, the lethality data for anthrax varies greatly. Some sources report the lethal dose to consist of 2,500 to 5,000 spores. Other sources run their estimates up to 50-80,000 spores. The Department of Defense estimate is 8,000 to 10,000 spores for a lethal dose.

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<sup>61</sup> Joshua Lederberg, ed., *Biological Weapons: Limiting the Threat* (Cambridge, Mass.: The MIT Press, 1999), 197.

<sup>62</sup> Ibid.

<sup>63</sup> Ken Alibek, *Biohazard* (New York: Random House, 1999), 73.

The difficulties associated with obtaining and disseminating chemical and biological agents are equally significant. Aum Shinrikyo operated in a exceedingly permissive environment, yet was unable to effectively employ either chemical or biological weapons. Other incidents also demonstrate the difficulty in achieving mass destruction from these dangerous substances.

## Chapter Four – Seeing the Event

### ***Blind Man Number Three - Chemical Response = Biological Response = WMD Response***

Defining Weapons of Mass Destruction

“He who would preserve everything, preserves nothing.”<sup>65</sup>

One of the obstacles to developing a comprehensive Consequence Management strategy is a failure of language. Dissimilar definitions of WMD ensure that it stands for different things to different organizations and individuals. The original term is of Soviet origin and included only weaponized nuclear, chemical and biological warfare agents. *United States Code* defines weapons of mass destruction as,

...(1) any destructive device as defines in section 921 of this title, [which reads] any explosive, incendiary, or poison gas, bomb, grenade rocket having a propellant charge of more than four ounces, missile having an explosive or incendiary charge of more than one quarter ounce, mine or device similar to the above; (2) poison gas; (3) any weapon involving a disease organism; or (4) any weapon that is designed to release radiation or radioactivity at a level dangerous to human life.”<sup>66</sup>

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<sup>64</sup> Lederberg, *Biological Weapons*, 201.

<sup>65</sup> Frederick The Great, "The Instruction of Frederick the Great for His Generals, 1747," in *Roots of Strategy*, Brig. Gen Thomas R. Phillips, Ed (Harrisburg, Pa: Stackpole Books, 1985), 345.

This definition would include the M67 Fragmentation Grenade, which contains 6.5 ounces of explosive.<sup>67</sup> This wide-ranging definition of weapons of mass destruction compounds the problem of defining Consequence Management. Federal agencies have adopted their own similar, but different definitions as well. Current Joint Doctrine defines a WMD as an arms control term.

Weapons that are capable of a high order of destruction and/or of being used in such a manner as to destroy large numbers of people. Can be nuclear, chemical, biological, and radiological weapons, but excludes the means of transporting or propelling the weapon where such means is a separable and divisible part of the weapon.<sup>68</sup>

The latest replacement acronym used by the Department of Defense replaces WMD with the easy to say CBNRE (Chemical, Biological, Nuclear, Radiological and Explosives).<sup>69</sup> While this new definition is more expansive, it still leads to a confused Consequence Management effort.

#### Defining Consequence Management

The US government does not have a single definition of Consequence Management. Different agencies have their own definition. Since FEMA is the Lead Federal Agency for Consequence Management, a review of their view on Consequence Management would serve as a point of departure.

Consequence Management includes measures to protect public health and safety, restore essential government services, and provide emergency relief to

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<sup>66</sup> Title 18, USC 2332a.

<sup>67</sup> Janes, *Infantry Weapons*, Terry J. Gardner ed., 25th edition (Alexandria, Va: Janes Information Group, Inc, 1999-2000), 554. The grenade contains 184.6 grams of Comp B explosive.

<sup>68</sup> Joint Chiefs of Staff, JP1-02, *Department of Defense Dictionary of Military and Associated Terms* (Washington, D.C.:23 March 1994, As Amended Through 10 January 2000), 487.

<sup>69</sup> Office of the Secretary of Defense, *Proliferation: Threat and Response*.

governments, businesses and individuals affected by the consequences of terrorism.<sup>70</sup>

The State Department, FBI and the DoD all have dissimilar definitions. This creates significant confusion during interagency coordination. Within the Department of Defense, Consequence Management has differing definitions. In *Proliferation: Threat and Response*, Consequence Management is defined as;

...Actions taken to respond and assist in the mitigation of damage and collateral hazards from the deliberate employment or accidental release of chemical, biological radiological, or nuclear materials or high-yield conventional explosive (CBRNE) weapons in a domestic or foreign environment.<sup>71</sup>

Most agencies lump WMD or CBRNE response into the same category. In size, scope and scale, the response needed for each of these is much different. Organizations that continue to treat WMD as a single entity will defend nothing. What is needed is a categorical approach to defining the event profile and the appropriate response. Weapons of mass destruction present a significant risk to the public. The term weapon of mass destruction is an inclusive term. Yet, current Consequence Management does not discriminate between the different characteristics of a WMD. The Consequence Management response to a toxic chemical incident is fundamentally different from a response to a biological weapon. The scale and scope of Consequence Management varies greatly from organization to organization. This cookie-cutter approach

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<sup>70</sup> Federal Emergency Management Agency, "Terrorism Incident Annex,"

<sup>71</sup> Office of the Secretary of Defense, *Proliferation: Threat and Response* 104.

leads the development of generic response plans that do not fit the requirements of any Consequence Management mission.

#### Time and Space

Perhaps the most critical aspect of the Consequence Management process is the time factor. For chemical weapons that have an almost immediate effect, response not done within the first, “golden,” hour is ineffective.

Consequence Management to a toxic chemical event is a local response. No matter how fast distant units can deploy, none can move fast enough to make a difference. The second aspect of time that is fundamental is the concept of lag time or latency. Biological and radiological agents do not immediately incapacitate the victim. Biological agents need time to incubate before the victim becomes symptomatic. The latency period for anthrax, for example, is four to seven days.<sup>72</sup> Often, the first sign of a biological attack will not appear days after the release. It will take time for the forensic pathology to establish where the release took place. By that time, there is little need for decontamination.

#### The Quick and the Dead – Chemical Event Profiles

The quick agents will affect the first responders, the fire, EMT and police personnel that will respond to the 911 call at the incident. Chemical weapons, Nuclear and conventional explosives fall into this category. Those effected will be at the incident site. First responders will respond into a chaotic scene, making life-and-death decisions in the first few minutes. Identification, or at least classification, triage and decontamination will dominate their efforts. The Incident

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<sup>72</sup> Lederberg, *Biological Weapons*, 206.



Command System will allow for a smooth integration of additional assets, as they become available. The incident site will soon become a black hole for response assets, pulling in elements from nearby communities. Most cities will have many hazardous material trained personnel. To most of them, chemical weapons like Sarin are another form of a Toxic industrial chemical. They have the equipment to respond to these materials. The health care system will also face a large challenge in these attacks. They will have to receive, triage, decontaminate and treat large numbers of victims. The health care system will also have to segregate the 'walking well' from other casualties to prevent a flood of patients.

The timeline of the Tokyo attack presents a sample of response. Local responders did not respond error-free, but attempted to the best of their ability.

Time	Event <sup>73</sup>
H-Hour	Agent released
H+9 minutes	First Emergency Call Received
H+ 28 minutes	First Three victims arrive on foot to local hospital
H+40 minutes	First Ambulance arrives. 500 patients arrive in the next three hours at this hospital
H+44	<b><u>National Police agency opens Emergency Operations Cell</u></b>
H+50	Hospital staff suspects Organophosphate poisoning Military support requested for confirmation
H+1 hour	Police begin to block access to stations
H+1:12	First news report
H+1:20	Hospitals declare emergency
H+2	Military doctors arrive, confirm Sarin
H+2:10	Decon units dispatched
H+4:50	Evidence collection complete by military team
H+6	Hospital sends home 528 patients with eye irritation
H+ 11:50 to H+16	Military units arrive – complete decontamination of stations

**Table 1 - Tokyo Subway Attack Timeline**

<sup>73</sup> Smithson, *Ataxia*, pp. 93-4.

Despite the lack of WMD awareness training, local responders were able to narrow down the causative agent to Organophosphates within an hour of an attack.<sup>74</sup> This was done by medical personnel in the local hospitals and was based on the observed symptoms. Despite Fire department reports of Acetonitrile as the agent, medical personnel disregarded this report because the symptoms did not match.<sup>75</sup> Acetonitrile was used by Aum to dilute the agent and to aid in its evaporation. From Aum's perspective, it had a negative effect in that it presented a distinguishable odor. This odor probably speeded the evacuation of the subway stations. Sarin is odorless and possibly not have panicked the commuters as quickly, which would have increased the amount of agent each commuter inhaled.

Despite the lack of training, it is important to note that the last patient arrived at a hospital before the fourth hour of the event. This reinforces the concept of the local response effort being paramount to success.

Dead Man Walking – Covert use of Biological weapons.

Because biological weapons are organisms, there is a pronounced delay from the time that exposure takes place to the onset of symptoms. The organism must grow within the host before the host becomes symptomatic. The delay or incubation period is dependent on numerous variables. For Anthrax, for example, the incubation period is four to seven days.<sup>76</sup> The Sverdlovsk release displayed a different incubation period, stretching from two to forty-three days

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<sup>74</sup> Organophosphates are the class of organic chemicals. Nerve agents, as well as many pesticides are members of this class.

<sup>75</sup> Smithson, *Ataxia*, 93.

<sup>76</sup> Lederberg, *Biological Weapons*, 206.

after the release.<sup>77</sup> There is some debate about this data. Some argued that the incubation period was longer because of the number of spores inhaled. Another theory, indicate that rudimentary clean-up efforts re-aerosolized the surviving spores, starting a new round of infections.<sup>78</sup> The Center for Disease Control estimates that ninety-five percent of those exposed to anthrax will develop symptoms in the first seven days.<sup>79</sup>

Covert release of biological agents will affect directly on the health care system, for the most part, bypassing the emergency responders. Biological agents have an incubation or latent period between exposure and the onset of symptoms. Biological toxins act more like chemicals; they are a poisonous substance that produce symptoms very quickly. Radiological weapons have a similar latent period. Citizens exposed to these latent agents will show up at the local hospitals as symptoms appear. Identification of the agent will be an epidemiological challenge. As media coverage increases, so will the influx of 'walking well' into the health care system.

American hospitals do not have the bed capacity to handle a large influx of patients. This bed capacity problem is magnified exponentially if the agent is contagious. The metropolitan Washington, DC area has just under 100 beds available for contagious patients.<sup>80</sup> The potential scale of these patient floods

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<sup>77</sup> Ibid.

<sup>78</sup> Alibek, *Biohazard*, 76.

<sup>79</sup> Arnold F. Kaufman, Martin I. Meltzer and George P. Schmid, "The Economic Impact of a Bioterrorist Attack: Are Prevention and Postattack Intervention Programs Justifiable?," *Emerging Infectious Diseases* Vol. 3, No. 2 (April-June 1997), 84.

<sup>80</sup> Smithson, *Ataxia*

would quickly overwhelm the facilities. Couple this with the large influx of 'walking well' that would misinterpret every symptom as positive indication of their own infection. Although seven thousand people lived in the release area at Sverdlovsk, 47,000 volunteered for vaccinations.<sup>81</sup>

### ***Blind Man Number Four - WMD Will Always Result In Massive Casualties***

The reported fact that a small amount of Sarin could produce 5,500 casualties underscored the perceived lethality of that Nerve agent. While this figure is oft quoted, it leads a reader to the wrong conclusion about the magnitude of the attack. Twelve citizens lost their lives in the attack. Each of these twelve had some physical contact with the liquid agent. Seventeen people were classified as critical, with another thirty-seven severe.<sup>82</sup> All of these victims were on the initial subway cars the agents were released. Patients in these two categories required antidote treatment and hospitalization. The next category, with 984 casualties, came from those experiencing mild symptoms, like miosis or pinpointed pupils. These individuals were observed and released. Significant here is that, of the 5,510 casualties that reported to Tokyo medical facilities, 4,470 or eighty-one percent showed no symptoms of nerve agent exposure.<sup>83</sup> These individuals, suffering from psychosomatic symptoms, were dubbed the 'walking well' by hospital officials.

When one breaks down the casualties by the severity of their symptoms, the magnitude of the attack becomes less extreme. The walking well outnumbered

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<sup>81</sup> Lederberg, *Biological Weapons*, 200.

<sup>82</sup> Smithson, *Ataxia*, 95.

<sup>83</sup> Ibid.

the critical and severely wounded by a factor of one hundred. The death toll of twelve is significantly less than the death toll of other contemporary terrorist attacks like Oklahoma City (168 dead) and the Pam-Am flight 203 (260 dead). Despite this analysis, many officials look at the 5,500 casualty figure as the basis to begin their planning.

## **Chapter Five - Seeing the Response**

### ***Blind Man Number Five - Local Responders Can't Handle It***

Tokyo responders were quickly overwhelmed, and most became casualties themselves. During the response effort, first responders arrived and began rescue and treatment efforts without protective equipment. Despite this unprotected approach, 90 percent of the responders emerged without any symptoms of exposure. Of those that did demonstrate symptoms, all were mild cases that did not require antidote treatment. One of the categories of personnel that did exhibit symptoms were EMT's involved in ambulance transport. Since no decontamination was done at the scene, the victims clothing released vapors inside the ambulances. Tokyo ambulance drivers solved this problem by driving with the windows down.<sup>84</sup> Ambulances transported 688 patients to various hospitals during the incident.

Over 4,800 came to the hospitals by other means, foot, taxi or private automobile. While Tokyo hospitals were barely capable of handling the ambulance traffic, the walking well quickly overwhelmed the hospitals. Most hospitals converted hallways and administrative spaces to hold the large number

of patients. About ten percent of the hospital workers became symptomatic also. Considering that the hospital did not have any method of decontamination for incoming patients, this number could have been much higher.

The perception that local responders became casualties has carried across the Pacific. A highly publicized no-notice exercise in New York left many firefighters “dead” after they entered the hazard area without adequate protection.<sup>85</sup> Local responders here have adopted a practice of assuming the highest level of protection. “Level A – all the way,” has become a rallying cry for local responders.<sup>86</sup> This attitude can be traced, in part, to the use of worst-case scenarios for training. An unintended consequence was noted by one fire Chief, “the training done to date has scared the first responders so much that they will stand back and watch people die.”<sup>87</sup> This hyperbole exists despite the wealth of experience that local responders have cultivated from years of HAZMAT responses. In 1998, there were seven million pounds of hazardous materials released in the US.<sup>88</sup> HAZMAT teams from large cities respond to thousands of calls each year.

Hospitals are also under fire for their ability to respond to a crisis. Tokyo hospitals had received no WMD training before the Aum subway attack, but were

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<sup>84</sup> Ibid.

<sup>85</sup> Smithson, *Ataxia*, 163.

<sup>86</sup> Ibid., 107.

<sup>87</sup> Ibid., 201.

<sup>88</sup> Environmental Protection Agency, *Summary of 1998 Toxics Release Inventory (TRI) Data*, <http://www.epa.gov/tri/tri98/data/1998datasumm.pdf>: Environmental Protection Agency, September 12, 2000:

able to make a correct diagnosis within the first hour. Only one hospital staffer required overnight hospitalization for nerve agent symptoms.<sup>89</sup>

The one exception to this assertion addresses the impact of a large-scale covert biological weapons release. Hospitals can, with difficulty, handle the large influx of patients from a toxic chemical release. A biological agent release would quickly overwhelm the capacity of the local hospital system. If the agent used were contagious, then hospitals would find their resources depleted even quicker. The best chance for success is a diligent surveillance program and a rapid influx of outside support.

### ***Blind Man Number Six - The Military Will Have To Save The Day***

The Tokyo subway attack left many impressions on even the casual observer. The initial scenes of chaos and the local responders were replaced with the footage of Japanese Self-Defense Force specialists decontaminating the subway areas. By then, eleven hours after the release, all of the casualties were long gone and all but a few were home watching TV. The perception gained was that the military restored order and ended the crisis. While the Japanese Self-Defense Force was trained and ready to accomplish the mission, the in-and-out coverage created a perception about the level of chaos. The point missed by those viewers was that the scene was less chaotic because several hours had passed. Nevertheless, these images helped establish the requirement for the Department of Defense as the quick answer to the Consequence Management crisis.

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<sup>89</sup> Smithson, *Ataxia*, 99

The Department of Defense is not the primary agency responsible for Consequence Management on American soil. A cognitive, and sometimes palatable, tension exists between the requirements for domestic Consequence Management and the Army's primary purpose.

The Army's Fundamental purpose is to fight and win the Nation's wars by establishing conditions for lasting peace through land force dominance.<sup>90</sup>

The Department of Defense, in support of this mission, has developed a tremendous amount of assets that can function in a contaminated environment. These units provide a robust capability to respond to a toxic chemical incident. These capabilities exist for a domestic response, with one major shortcoming. DoD units cannot arrive in time to impact of a toxic chemical release.

If the Aum attack were the baseline, even the fastest deploying unit, touted to be the WMD-CST teams, would be ready to deploy ten minutes after the last patient was evacuated. Many individuals, including the GAO have disputed this incredibly optimistic timeline.<sup>91</sup> The critical time for the response effort is the recognition of a WMD-type chemical event. This time, related to the Aum incident, was the establishment of the National Emergency Operations Cell. This occurred forty-four minutes after the release. If the WMD-CST unit deployed in four hours from this point, they would arrive at H+4:44, nearly an hour after the last victim had been evacuated.

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<sup>90</sup> US Army, *FM 100-1, The Army* (Washington, D.C.: Headquarters, Department of the Army, 14 June 1994), 2.

<sup>91</sup> GAO, *Combating Terrorism - Use of National Guard Response Teams is Unclear*, 18.



This reality was recognized by the Assistant Secretary of Defense for Special Operations and Low-Intensity Conflict, H. Allen Holmes,

The ability of first responders to correctly identify an incident as a terrorist WMD attack – and respond accordingly – will mean the difference between life and death in the outcome and will prevent first responders from becoming victims. **It is better to have redundant coverage than to wait until the regional responders can reach the scene of the incident.**<sup>92</sup> (Emphasis added)

The military can provide significant and timely support to Civil Authorities in case of bioterrorism. The DoD has deployable medical units that could be quickly mobilized to an stricken city to either assume the normal health care mission that contaminated hospitals would be unable to meet, or to accept all of the victims. Equally important, these organizations possess the inherent ability to receive and distribute medical supplies critical to the long-term recovery of the population.

## Chapter Six – Seeing the Elephant (Recommendations)

*And so these men of Indostan  
Disputed loud and long,  
Each in his own opinion  
Exceeding stiff and strong,  
Though each was partly in the right,  
And all were in the wrong!*

*Moral:  
So oft in theologic wars,  
The disputants, I ween,  
Rail on in utter ignorance  
Of what each other mean,  
And prate about an Elephant*

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<sup>92</sup> GAO, *Combating Terrorism, Opportunities to Improve Domestic Preparedness Focus and Efficiency*, 38. With respect to Mr. Holmes, he has fallen in to the mistake of labeling WMD response as the same. His comments refer to the criticality of time in a toxic chemical event.

*Not one of them has seen.*<sup>93</sup>

The response to the emergence of terrorism on American soil was accelerated by the misconceptions about the Aum Shinrikyo attack. These misperceptions have fueled debate on terrorism and WMD use and have led the US down a specific path in developing a Consequence Management capability. This monograph establishes six misperceptions common in Consequence Management programs today. These misperceptions, as those made by the blind men in the parable, result from a narrow viewpoint. Since the monograph established the difference in the nature of the response required for chemical and biological events, the recommendations had better follow this distinction.

***Chemical response initiatives.***

There are two initiatives the Department of Defense can accept to improve the capabilities of the local responders. First, The DoD must recognize that it's specialized response teams cannot arrive at an incident site fast enough to contribute to the response. WMD-CST and CBIRF elements cannot overcome the time-distance factor when time is so critical. The response will be a local one. Specialized units that respond after an event siphon resources away from the local response community. These units present a façade of capability that does not exist. These units should be deactivated and their equipment transferred to the local response community. All DoD efforts, whether under the provisions of Nunn-Lugar-Dominici or unilaterally, must be designed to improve the response capability of the local response community.

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<sup>93</sup> Saxe, *The Blind Men and the Elephant*.

Secondly, the DoD should refocus resources to assist the local responders. Technical assistance to develop and mature local response capabilities places the emphasis in the local response community. One of the greatest shortcoming is the inability of hospitals to handle a large influx of contaminated casualties. Some technical assistance efforts can help develop a rudimentary decontamination capability for hospitals.

### ***Biological Response Initiatives.***

The response to a bioterrorism event is incredibly difficult. While Biological agents are more lethal than chemical, their latent period provides a window of opportunity for federal assets to respond. In many ways, the response required for a bioterrorism is not much different than that needed for other disasters. DoD assets will be asked to provide medical, security and logistical support to the lead federal agency. These response efforts need to be better coordinated with other agencies to ensure that all share a common operational concept of what the DoD can provide, by when. Existing National Guard units will likely be a major part of this effort; no additional organizations need to be created.

### ***A New Response Mechanism***

A tiered response is needed in order to effectively create the mechanism to represent the Department of Defense Consequence Management mission. Based on the observations presented earlier in the monograph, a tiered, three-phase response plan will allow the Department of Defense to respond within the limits of the Federal Response Plan.

A Level-1 response occurs at the onset of a toxic agent incident. This response is within the capabilities of the local response community to handle. The main DoD effort in a level one event occurs before the event by making the local response as robust as possible.

A Level-2 response occurs when the effort required is beyond the capabilities of the local response communities, such as multiple events in a single city. DoD assets provide limited technical advice to assist in the reconstitution of local response capability, long-term health care or site remediation. The C-B/RRT is suited for this type of advise and assist role

A Level-3 response is a national health-care emergency. Use of a biological agent would trigger a Level-3 response. Main responding units would include medical forces to ease the burden on the local health infrastructure. Other units would assist in providing security and logistical assistance to the lead Federal Agency. No special units are required, but the deployment of JTF-CS would ensure effective command and control over the DoD elements assisting in the response.

“It is foolish to hunt a tiger, when there are plenty of sheep to be had.” - Hamas training manual<sup>94</sup>

Proliferation will never be totally effective. Preparedness at the local level is critical to our national security. Regardless of the threat assessment, America can not afford to be ill prepared for a WMD incident on American soil. A tiered

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<sup>94</sup> US Army. Pacific. Operations Division, PowerPoint Briefing, *Force Protection Annual Briefing* (Ft Shafter, Hawaii: April, 1997),

response, balancing existing capabilities over time, allows the Department of Defense to contribute to the Consequence Management effort.

Before the US can build an effective Consequence Management program, it needs to stop and see the whole elephant. The temptation to speed ahead is strong. No leader wants to be idle when faced with such a threat. “The race is on to prepare for a WMD incident, it is a race we cannot afford to lose.”<sup>95</sup> This monograph suggests a step back from the race to see the whole elephant, recognize what is in the realm of the possible, and then move out to prepare the nation.

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<sup>95</sup> Office of the Secretary of Defense, *Proliferation: Threat and Response*, pg. li.

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